



Lactose Intolerance Fact Sheet

What is lactose?

Milk from cows, goats, and other animals contains a natural sugar, called lactose. Human breast milk is very high in lactose.

Species	Percent Fat	Percent Protein	Percent Lactose
Cow (Holstein)	3.5	3.1	4.9
Goat	3.5	3.1	4.6
Human	4.5	1.1	6.8
Monkey	3.9	2.1	5.9
Sheep	5.3	5.5	4.6

Source: http://classes.aces.uiuc.edu/AnSci308/Milkcomp_table.html

In order to digest milk, our bodies need to break this sugar down into small pieces.

What is lactose intolerance?

Babies are born with the ability to break down the sugar in milk. As we get older, we are less able to break them down. Some people experience symptoms of discomfort because of this. This is called "lactose intolerance." Lactose intolerance is different than a milk allergy, although some of the symptoms may be the same. Symptoms of lactose intolerance can include gas, diarrhea, cramping, and bloating after eating milk or milk products. Some babies may develop lactose intolerance after having diarrhea, but this usually does not last.

What do I do if my child has symptoms after drinking milk or breastfeeding?

It is important to discuss the symptoms with your child's doctor. The doctor may do tests, because many things cause the same symptoms as lactose intolerance. If your child's symptoms are caused by lactose intolerance, then you will likely be given suggestions like these:

- Limit milk intake to 4-8oz at each meal.
- Encourage low lactose dairy foods, such as hard cheeses and yogurt.
- Drink lactase treated milk, such as Lactaid™ or DairyEase™.
- Take lactase pills before eating milk or dairy products.
- Gradually increase dairy intake, as this sometimes helps reduce symptoms.

If your child can't tolerate any dairy, you should work with a doctor or dietician to assure that your child gets enough of calcium and other nutrients found in milk (these include

protein, vitamin D, potassium, phosphorus, magnesium, zinc, , riboflavin, vitamin B12, and vitamin A).

Some foods or beverages are calcium-fortified, such as soy milk or orange juice, and these can help children meet their calcium needs. However, we don't absorb calcium as well when it is in soy milk as when it is in cow's milk; and children should limit juice intake to ~6 oz per day. Children 4-8 years old need 800 mg of calcium each day, and children 9-18 years old need 1300 mg of calcium each day.

This table shows how much lactose and calcium are in some high calcium foods.

Dairy Products	Lactose Content	Calcium Content
Yogurt, plain, low-fat, 1 cup	5 g	415 mg
Milk, reduced fat, 1 cup	11 g	295 mg
Swiss cheese, 1 oz.	1 g	270 mg
Ice cream, ½ cup	6 g	85 mg
Cottage cheese	2-3 g	75 mg
Vegetables		
Soymilk, fortified, 1 cup	0	200-300 mg
Sardines, with edible bones, 3 oz.	0	270 mg
Salmon, canned, with edible bones, 3 oz.	0	205 mg
Broccoli, raw, 1 cup	0	90 mg

Source: NIH Publication No. 06-2751

Websites for more information

- American Academy of Family Physicians. Lactose Intolerance. <http://www.aafp.org/afp/20020501/1855ph.html>
- American Academy of Pediatrics. Calcium - Getting What You Need. <http://www.aap.org/patiented/calciumneed.htm>
- National Digestive Diseases Information Clearinghouse. Lactose Intolerance. <http://digestive.niddk.nih.gov/ddiseases/pubs/lactoseintolerance/>
- National Institute of Child Health and Human Development. Milk Matters. <http://www.nichd.nih.gov/milk/>

Sources

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2. Heyman MB. Lactose intolerance in infants, children, and adolescents. *Pediatrics.* Sep 2006;118(3):1279-1286.
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6. UIUC College of Agricultural Consumer and Environmental Sciences. Milk Composition - Species Table; 2006.
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